**Spatial-temporal Patterns of Taxis in Chicago**

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Final Proposal

**Question:**

This project seeks to explore the spatial-temporal patterns of taxi service in Chicago, to create an interactive and animated map showing the pattern, and finally form an application of recommendation in potential pickup spot.

**The Data:**

Chicago taxi trips data and Chicago community boundaries, both available on government website.

**Technology Used:**

For data cleaning, I will apply SQL and R. The data will be stored in google fusion table, and be queried using Google API. For the web page, leaflet, underscore, and D3 may be applied to represent an interactive map.

**Design Spec:**

The user case is when taxi companies and drivers wonder the history of taxi trips on a certain day, and the prediction result of the next week. The application also provide visualization of distribution of trips for anyone who is interested in connections among communities.

The layout should include a map window, a sidebar containing inputs and buttons and a modal exhibiting chart.

**Difficulties:**

The animated map should be like a gif showing a 24-hour change of trip counts. Creating the map may be a difficulty. More tools for an animated map are the missing pieces for me.